

**ABSTRACT OF THE DISCLOSURE**

In a wireless communication receiver (31) of a wireless communication system that utilizes transmit diversity and turbo coding, symbol decisions are based at least in part on a posteriori probabilities (47, 48) produced by SISO decoders (35, 36). These probabilities are produced iteratively in alternating fashion to support the symbol decision process. The SISO decoder associated with the weakest (92) wireless communication channel goes first (93) in the iterative process.